CLAIMS

1. (previously presented) A system for improving the signal-to-noise ratio of a differential signal comprising:

first and second signal lines connected to corresponding first and second inputs of a differential amplifier; and

a means for adjusting an impedance connected between at least one of the signal lines and a ground point, wherein the means for adjusting improves rejection of common mode noise by matching the impedance of the first input signal line with the second input signal line.

Claim 2 (canceled)

3. (original) The system for improving the signal-to-noise ratio of claim 1, further comprising a plurality of impedance elements selectively connected to at least one of the signal lines by a corresponding plurality of switch members.

4. (original) The system for improving the signal-to-noise ratio of claim 3, wherein at least some of the impedance elements are capacitors.

5. (original) The system for improving the signal-to-noise ratio of claim 1, further comprising a means for adjusting an impedance connected to each of said first and second signal lines.

6. (previously presented) A system for improving the signal-to-noise ratio of a differential signal comprising:

first and second signal lines connected to corresponding first and second inputs of a differential amplifier; and

a plurality of impedance members selectively connected between at least one of the signal lines and a ground point by a plurality of switches; and

a controller coupled to the switches, the controller selectively connecting the impedance members to the at least one of the signal lines in order to match the impedance of the first and second signal lines to reject common mode noise.

Claim 7 (canceled)

8. (original) The system for improving the signal-to-noise ratio of claim 6, wherein at least some of the impedance elements are capacitors.

9. (original) The system for improving the signal-to-noise ratio of claim 6, further comprising a plurality of impedance members selectively connected to each of the signal lines with a plurality of switches.

10. (previously presented) A method for improving the signal-to-noise ratio of a differential signal comprising the steps of:

providing first and second signal lines connected to corresponding first and second inputs of a differential amplifier; and

selectively changing an impedance connected between at least one of the signal lines and a ground point, wherein the impedance is changed to improve rejection of common mode noise by matching the impedance of the first input signal line with the second input signal line.

11. (original) The method for improving the signal-to-noise ratio of claim 10, further comprising a step of selectively connecting one or more of a plurality of impedance elements to at least one of the signal lines with switch members.

12. (original) The method for improving the signal-to-noise ratio of claim 10, wherein at least some of the impedance elements are capacitors.